

KALACHEV, M.M., inzh.

Manufacturing pipelines from standard components. Sudostroenie 25  
no.1:65-66 Ja '59. (MIRA 12:3)  
(Pipelines)

*KALACHENKO*  
TKACHENKO, G.G.; KALACHEN, N.I., konstruktor.

Hydraulic press for removing pipe ends from heat exchanger grills.  
Neftianik 2 no.12:24-25 D '57. (MIRA 11:2)

1. Nachal'nik tsakha No.9 Kuybyshevskogo neftepererabatyvayushchego  
zavoda.

(Hydraulic presses)

KALACHEV, N.

"Problem of the Irrigation of the Bet-Pak-Dal Desert", Vestn. AN  
Kazakh SSR, No 5, (98) 49-55, 1953.

The author proposes a variation in the irrigation of the Bet-Pak-Dal desert by self-flow canal from the Ila River. This problem envisions the simultaneous use of the runoff from the rivers Ila and Chu in the power, irrigational, and transport system. (RZhGeol, No 5, 1954)  
SO: Sum No. 443, 5 Apr. 55

KALACHEV, N.S.

Making a water-power survey. Izv. AN Kazakh SSR. Ser. energ. no. 9:  
95-108 '55. (MLRA 9:5)  
(Kazakhstan--Water supply)

CHOKIN, Sh. Ch.; KALACHEV, N. S.; KIRFENKO, V. A.

The problem of irrigating central Kazakhstan with water from  
the Irtysh. Vest. AN Kazakh. SSR 11 no. 6:15-24 Je '55.  
(Kazakhstan--Irrigation) (MLRA 8:8)

KALACHEV, N.S.; LAVRENT'YEVA, L.D.

Hypsometric index for the qualitative evaluation of water-power  
resources. Izv. AN Kazakh. SSR. Ser. energ. no. 11:62-69 '56.  
(Hydrology) (MLRA 10:2)

KALACHEV, N.S., kandidat tekhnicheskikh nauk.

The problem of efficient irrigation and power utilization of river streams in dessicated regions. Vest.AN Kazakh.SSR 12 no.1:3-9  
Ja '56. (MLRA 9:5)

1. Predstavlena deystvitel'nym chlenom AN KazSSR Sh.Ch. Chokinyn.  
(Irrigation) (Hydroelectric power)

8(6)

PHASE I BOOK EXPLOITATION

SOV/2083

Kalachev, Nikolay Stepanovich, Saveliy Yakovlevich Mayzel', Aleksandr Borisovich  
Reznyakov, and Shafik Chokinovich Chokin

Energetika Kazakhstana (Power Resources of Kazakhstan) Alma-Ata, Izd-vo AN  
Kazakhskoy SSR, 1958. 222 p. Errata slip inserted. 1,300 copies printed.

Sponsoring Agency: Akademiya nauk Kazakhskoy SSR. Institut energetiki.

Ed. (Title page): Sh. Ch. Chokin, Academician, Kazakh SSR Academy of Sciences;  
Eds. (Inside book): L. S. Rzhondkovskaya and Yu. N. Kuznetsov; Tech. Ed.:  
P. F. Alferova.

**PURPOSE:** This book is intended for engineers, geographers, economists, and other  
persons interested in the potential and present power resources of the Kaz-  
akh Republic.

**COVERAGE:** The monograph consists of two parts: The first, based on factual data,  
reviews in detail the fuel, hydro and wind-power resources of Kazakhstan, the  
degree to which they have been studied, their distribution throughout the ter-  
ritory, their quantitative and qualitative characteristics, and also, their

Card 1/4



Power Resources of Kazakhstan

SOV/2083

PART II. FUNDAMENTAL PRINCIPLES FOR THE ELECTRIFICATION  
OF THE NATIONAL ECONOMY OF KAZAKHSTAN

Ch. I. General Principles	91
Ch. II. The Northern Power Region of Kazakhstan	109
Ch. III. The Eastern Power Region of Kazakhstan	136
Ch. IV. The Southern Power Region of Kazakhstan	157
Ch. V. The Western Power Region of Kazakhstan	182
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TM/fal  
8-18-59

30(5)

AUTHOR:

Kalachev, N.S., Candidate of Technical Sciences

SOV/31-59-3-2/14

TITLE:

On the Rational Utilization of the Flow of the Ili River (O ratsional'nom ispol'zovanii stoka reki Ili)

PERIODICAL:

Vestnik Akademii nauk Kazakhskoy SSR, 1959, Nr 3, pp 24-31 (USSR)

ABSTRACT:

This article is a resumé of a report delivered by the author at a conference of Red Chinese water-economy organizations in Peking on 15 August 1958. It deals with the possibilities of utilizing the high water discharges of the rivers of the Ili Basin for electrical power and irrigational purposes. The Ili Basin encloses 162,000 sq km, of which about 100,000 sq km belong to the mountainous part of the basin. The average discharge of the river per second is 472 cbm (annual flow 14.9 billion cbm). The general fall of the river from the sources (Kunges River) to the mouth is 2,650 m, from the confluence of the rivers Kunges and Tekes to the mouth 460 m. Within the borders of the Soviet

Card 1/5

SOV/31-59-3-2/14

On the National Utilization of the Flow of the Ili River

Union it has 190 m fall over the 766 km of the last section. The water discharge along the Soviet river section does not vary very much. Downstream from the mouth of the border affluent Khorgos, it is 376 cbm/s, on the lower course (at landmark Ush-Dzharma) it is 464 cbm/s. No data is available on the water discharge on Chinese territory. According to the author's estimate, it gradually increases from 46 to 290 cbm and more. These figures show, that the flow is essentially formed on Chinese territory. The Soviet section of the river fulfills the function of a transit of the flow. The abundance of water of the rivers of the basin and their considerable fall create a huge electric power potential. The total resources of the Ili Basin are estimated at an average annual capacity of 4.1 million kw (or 36.4 billion kwh of electric energy per year). Of this capacity 2.4 million kw are concentrated on Red Chinese territory, while 1.7 million kw are the share of the Soviet Union.

Card 2/5

SOV/31-59-3-2/14

On the Rational Utilization of the Flow of the Ili River

The economical utilization of the flow in the Ili Basin till now has been very low. The existing Soviet irrigation systems utilize only 1.7 billion cbm of water per year, which represents little more than 10% of the water reserve. As to power production, the utilization of the rivers is still in embryo. Future planning has to consider two different problems: the utilization of special sections of the rivers for power production, and the utilization of the rivers for complex systems of irrigation and power engineering. The first problem can be resolved only in the mountainous regions. Complex systems of irrigation and power engineering are recommended for the foothill region with its extensive tracts of arable land. This region comprises the end section of the affluents and the middle course of the river down to the beginning of the delta. The power potential of the basin is divided between the two zones in the following way: zone of exclusive power engineering - 49%, zone of

Card 3/5

SOV/31-59-3-2/14

On the Rational Utilization of the Flow of the Ili River

complex systems of irrigation and power engineering - 51%. The Kapchagayskaya GES (Kapchagay Hydroelectric Power Plant) will be built seventy km north of Alma-Ata within the next few years. The construction of this plant will help to resolve the irrigation problem of the area adjacent to the lower course of the River. Some more plants will be necessary to realize the program of irrigating or seasonal flooding of 1 million hectares in addition to the already irrigated area of 500,000 ha in the basin. The solution of this program will require joint Soviet-Red Chinese cooperation, because 400,000 ha of this prospective area are located on Red-Chinese territory (see table 3). According to a new irrigation system, which was developed by Dokuchayev, Kostychev, Vil'yams, V.A. Shaumyan and S.L. Mirkin, it will be possible to supply a norm of 3,000 cbm of water to each hectare of land. In view of the annual flow of 14.9 billion cbm, it can be assumed, that in the case of a realization of the aforesaid program, the river

Card 4/5

SOV/31-59-3-2/14

On the Rational Utilization of the Flow of the Ili River

still will have a surplus flow of about 10 billion cbm per year. At present, the Institut energetiki (Institute of Power Engineering) of the Kazakh AS has completed preliminary investigations concerning transit of the Ili river flow to the Chu river Basin. This project will permit irrigation and flooding in the Betpak-Dale Desert over an area of 3.5 million ha and a simultaneous production of more than 2 billion kwh of electric energy per year by the power stations to be built on the new canal. This project also opens the possibility of a new water communication artery on the route Ili-Chu-Syr-Dar'ya. The author urgently recommends close co-operation between the Kazakh and the Red Chinese academies of sciences. There are 4 maps and 3 tables.

Card 5/5

BUSALAYEV, I.V.; KALACHEV, N.S.

Elements of the morphometric analysis of river valleys.  
Izv.AN Kazakh.SSR Ser.energ. no.2:3-14 '60.

(MIRA 13:7)

(Water supply) (Physical geography) (Valleys)

KALACHEV, N.S.

Principal basis for the overall use of the water power resources of  
the rivers of Kazakhstan. Trudy Inst. energ. AN Kazakh. SSR 2:193-  
200 '60. (MIRA 15:1)

(Kazakhstan--Water power) (Kazakhstan--Rivers)



KALACHEV, N.S., kand.tekhn.nauk; LAVRENT'YEVA, L.D., kand.tekhn.nauk

New data on hydroelectric power resources in Kazakhstan. Vest.  
AN Kazakh.SSR 18 no.11:19-28 N '62. (MIRA 15:12)  
(Kazakhstan--Hydroelectric power)

KALACHEV, N.S.

Establishment of rational limits for regulating runoff.  
Probl. gidroenerg. i vod. khoz. no.1:101-119 '63.

System of the characteristics of annual uneven runoff of rivers.  
Ibid.:120-137 (MIRA 16:12)

1. Institut energetiki AN KazSSR.

KALACHEV, Nikolay Stepanovich; LAVRENT'YEVA, Lyudmila  
Dmitriyevna; CHOKIN, Sh.Ch., akademik, red.; FOGOZHEV,  
A.S., red.; GLAZYRINA, D.M., red.

[Cadastral survey of water-power resources of the rivers  
of the Kazakh S.S.R.; potential resources] Vodnoenerge-  
ticheskii kadastr rek Kazakhskoi SSR; potentsial'nye re-  
sursy. Alma-Ata, Nauka, 1965. 706 p. (MIRA 18:7)

1. Akademiya nauk Kazakhskoy SSR (for Chokin).

KALACHEV, N.S., kand. tekhn. nauk

Optimization of the structure of water economy systems. Vest.  
AN Kazakh. SSR 21 no.1:3-11 Ja '65.

(MIRA 18:7)

L 3872-66 E.T(1) TF/CW  
AM5023905

BOOK EXPLOITATION

UR/

Kalachev, Nikolay Stepanovich; Lavrent'yeva, Lyubov' Dmitriyevna

55 55  
An evaluation of the water power capacity of rivers of the Kazakh S.S.R.; potential resources (Vodnoenergeticheskiy kadastr rek Kazakhskoy SSR; potentsial'nyye resursy) Alma-Ata, Izd-vo "Nauka", 1965 706 p. illus., tables, fold. maps. (At head of title: Akademiya nauk Kazakhskoy SSR. Gosudarstvennyy komitet po energetike i elektrifikatsii SSSR. Institut energetiki) 1350 copies printed.

TOPIC TAGS: hydrographic survey, hydrology, water management, hydro-electric engineering 12, 55

PURPOSE AND COVERAGE: Study of water-power resources in the Kazakhskaya SSR was started on a large scale, with the organization in 1944 of a special institute of power engineering at the Kazakh Branch of the Academy of Sciences USSR. This institute completed the first comprehensive evaluation of the water-power potential of the republic, initially covering the 130 largest rivers; subsequently, detailed analysis of water-power resources in individual region of Kazakhstan was undertaken. The present monograph summarizes the results of the work of the institute, conducted over

Cord 1/3

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many years under the direction and direct participation of the authors. The water-power evaluation includes detailed characteristics of 2,174 rivers of the republic (over 10-km long), water-power potential of which is estimated to be 172.6 billion kw-hr a year. Information is given for six separate regions: southern, southeastern, eastern, northern, central, and western. The tables include data on the length of rivers, flow gradient, watershed areas, and power resources. The book is intended for workers of scientific research organizations and industrial enterprises, dealing with the planning and development of water management installations and systems in the republic. Numerous tables and charts are included.

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AM5023905

1. Rivers of southern Kazakhstan -- 47
2. Rivers of southeastern Kazakhstan -- 171
3. Rivers of eastern Kazakhstan -- 415
4. Rivers of northern, central, and western Kazakhstan -- 631

SUB CODE: ES

SUBMITTED: 10Mar65 NO REF SOV: 000

OTHER: 000

  
Card 3/3

YAKIMOVICH, V., inzh.; MAGONIN, P.; SHELEST, S.; OSNOVIKOV, G.; KALACHEV,  
O., inzh.; DOKTORMAN, M.; ZHITYAYEV, S.; FARBER, A., inzh.

Suggestions of efficiency operators introduced at grain procurement  
stations and grain-milling enterprises. Muk.-elev. prom. 25. no.4:23-29  
Ap '59. (MIRA 13:1)

- 1.Ministerstvo khleboproduktov Kazakhskoy SSSR (for Yakimovich).
  - 2.Chelyabinskoye upravleniye khleboproduktov (for Magonin).
  - 3.Glavnyy inzhener Novomoskovskogo zavoda po obrabotke semyan  
kukuruzy (for Shelest).
  - 4.Altayskoye upravleniye khleboproduktov (for  
Osnoyikov).
  - 5.Ministerstvo khleboproduktov BSSR (for Kalachev).
  - 6.Luganskoye upravleniye khleboproduktov (for Doktorman).
  - 7.Knybyshevskoye  
upravleniye khleboproduktov (for Zhityayev).
- (Grain elevators) (Grain milling)



21658

S/109/61/006/003/013/018  
E032/E314

3.1710 (1041, 1126, 1127)

AUTHORS: Kalachev, P.D. and Salomonovich, A.Ye.

TITLE: The Radiotelescope of the Physics Institute of  
the AS USSR, Incorporating a 22-m Parabolic  
Reflector

PERIODICAL: Radiotekhnika i elektronika, 1961, Vol. 6, No. 3,  
pp. 422 - 429

TEXT: The radiotelescope is in the form of a parabolic reflector having an aperture of 22 m and a focal length of 9.525 m (angular aperture  $2\sqrt{V} = 120$  deg). The design of the radiotelescope was carried out at the Physics Institute of the AS USSR and it was brought into use in the summer of 1959. Various radio-astronomical observations have already been carried out, including the 0.8 cm radio emission of Venus. The reflector can be rotated between -5 and +95 deg relative to the horizon. Azimuthal rotations of  $\pm 80$  deg are also possible. The radiotelescope incorporates a 110 mm refractor, used as an optical telescope-guide. The following facilities are available: a) automatic tracking of a given point on the

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21658

The Radiotelescope ....

S/109/61/006/003/013/018  
E032/E314

celestial sphere to within  $\pm 30$  deg; b) semi-automatic tracking in accordance with the programme fed in by the operator over given time intervals; c) alignment in a given direction from the control cabin; d) alignment in a given direction and motion with a given velocity controlled by the operator in the visual-alignment cabin. Angles can be measured to within 7.5". Photographs of the telescope are reproduced and a brief description is given of some of its mechanical parts. Further details are given in the next abstract. There are 6 figures and 1 Soviet reference.

ASSOCIATION: Fizicheskiy institut im. P.N. Lebedeva AN SSSR  
(Physics Institute im. P.N. Lebedev of the  
AS USSR)

SUBMITTED: May 10, 1960

Card 2/2

3.1710

13833

8/504/62/017/000/001/007  
1046/1246

**AUTHORS:**

Kalachev, P.D. and Salomonovich, A.Ye.

**TITLE:**

The radiotelescope with the 22-meter reflector

**SOURCE:**

Akademiya nauk SSSR. Fizicheskiy institut. Trudy, v. 17. Moscow, 1962.  
Radioastronomiya, 13-41

**TEXT:** The author reviews the design, the mounting and the adjustment of the 22-m radio-telescope of the Fizicheskiy institut AN SSSR (Physical Institute AS USSR). The total weight of the telescope is 463 tons, the maximum height is 26.7 m. The reflecting surface is manufactured of 6 mm aluminum sheets. For azimuthal centering, the telescope can be rotated slowly, at a rate of 1 revolution per 24 hours, or rapidly, at a rate of 18 degrees per minute; for position centering, the telescope can be rotated at a rate of 1 revolution per 24 hours or at a rate of 25.5 degrees per minute. The instrument is suitable for operation in a wide range of centimeter waves, starting with  $\sim 1$  cm. On uniform heating by  $\pm 25^\circ$ , the focal distance of the reflecting paraboloid changes by no more than  $\pm 3.5$  mm. There are 23 figures.

Card 1/1

ACCESSION NR: AP4018702

8/0145/63/000/012/0049/0058

AUTHOR: Kalachev, P. D. (Chief designer)

TITLE: Possibility of designing a rigid parabolic antenna for a large parabolic reflector

SOURCE: IVUZ. Mashinostroyeniye, no. 12, 1963, 49-58

TOPIC TAGS: parabolic antenna, rigid parabolic antenna, parabolic reflector, antenna design, deflection, load, bearing

ABSTRACT: An attempt was made to design a parabolic reflector subject to small deflections under the dead load. Proper design relation of its body and suspension structure to the bearing and rotating members was desired. Total deviation of reflecting surface from the required form represents a sum of four factors: 1) material and process inaccuracies; 2) dead-load elastic deformations; 3) wind-load deformations; 4) temperature deformations. To assure its maximum rigidity, the reflector should be supported by eight radially symmetrical bearings shown by points 1-8 on Fig. 1 of the Enclosure. These bearings should be located on the chords of the concentric structural members equidistant between the radial members.

Card 1/4

ACCESSION NR: AP4018702

Proper design calls for determining the smallest number of bearings necessary to assure the allowable amount of deformation and for a suspension system which would allow the distance from one bearing to another to remain constant. The first condition may be met by elementary methods of structural mechanics; the second is solved with the help of equation:  $Z = (4 \times 2^m)n + K$ , where  $Z$  is the number of bearings,  $n$  is the number of concentric structural polygons,  $(4 \times 2^m)$  is the number of bearings in each polygon, and  $K$  is the number of central bearings ( $K = 0$  or  $1$ ;  $m = 0, 1, 2, 3$ ). An example of design for a reflector with 66-m diameter is briefly presented. This size would necessitate the use of 17 bearings uniformly distributed in a circle with  $D = 0.85 D_{refl}$ . The author concludes with the statement that a knowledge of local wind conditions and temperature gradients is necessary for proper solution of the problem. He believes the design method involving the determination of the proper number of bearings would eliminate prohibitive deflections in the reflector members. The main advantage of this design method stems from the fact that the radially symmetrical bearings are used to support a radially symmetrical structure. The method would eliminate the need for complex provisions to be used in compensating for elastic deformations. It could be applied to reflectors with 100-m diameters or larger, which would be operated through servomechanisms. Orig. art. has: 5 figures and 6 equations.

Card 2/4

ACCESSION NR: AP4018702

ASSOCIATION: Fizicheskiy Institut Akademii Nauk SSSR (Physics Institute, Academy of Sciences, SSSR)

SUBMITTED: 26Jul62

DATE ACQ: 27Mar64

ENCL: 01

SUB CODE: SD, AP

NO REF SOV: 006

OTHER: 002

Card 3/4

ACCESSION NR: AP4018702

ENCLOSURE: 01

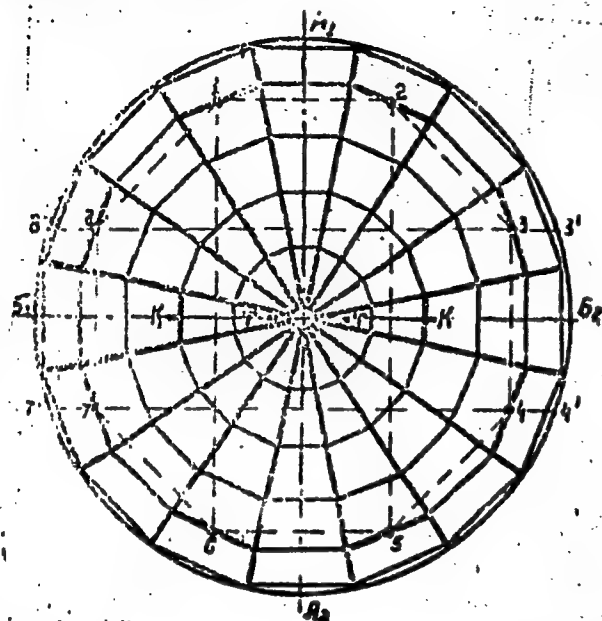


Fig. 1. Plan of the load-bearing members in a parabolic reflector.

Card 4/4

KALACHEV, P. D.

ACCESSION NR: AP3000164

S/0141/63/006/002/0398/0401

AUTHOR: Kalachev, P. D.

TITLE: Some construction possibilities in building a rigid large-diameter parabolic antenna

SOURCE: Izvestiya vysshikh uchebnykh zavedeniy, radiofizika, v. 6, no. 2, 1963, 398-401

TOPIC TAGS: radio astronomy, antenna, parabolic antenna, static deflection

ABSTRACT: A general multisupport construction is proposed for a large-diameter parabolic antenna for the purpose of minimizing the dish distortion caused by static deflection at various antenna attitudes. As a theoretical example, a 66-m diameter reflector is assumed which is not to incur static deflections in excess of  $\pm 3$  mm. Assuming an arrangement of supports in which the distance from the dish edge to an outer support does not exceed 4-5 m and the distance between supports is between 10 and 14 m, a total of 17 support members is necessary. These are arranged in a main outer and auxiliary inner circle of

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ACCESSION NR: AP3000164

supports plus one central member, as shown in the illustration. Load members 9 from the inner support circle converge symmetrically at the center of counterweight beam 10 and are considered rigid enough that the plane of the inner support points has negligible deflection under any antenna position; the problem thus reduces to compensating for distortions in the region of the outer support circle. This is achieved by adjusting the counterweight load moment as a function of elevation position. A further kinematic compensation, which will maintain the plane of the outer support points parallel to that of the inner points, is possible by automatically shifting the convergence point of load members 9 along the counterweight beam as required. By this technique a given degree of parabolicity is maintained for any elevation of the antenna. Orig. art. has: 1 figure.

ASSOCIATION: Fizicheskii institut im. P. N. Lebedeva AN SSSR (Physics Institute AN SSSR)

SUBMITTED: 16Jul62      DATE ACQ: 12Jun63      ENCL: 01

SUB CODE: 00      NO REF SQV: 002      OTHER: 001

Card 2/3

ACCESSION NR: AP5000164

ENCLOSURE: 01

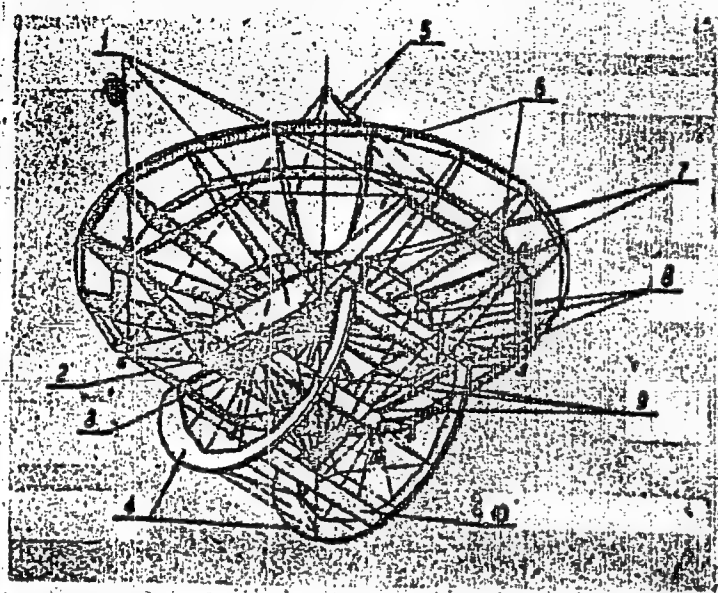


Fig. 1. Design diagram of the reflector, the auxiliary support structure, the rotating sections, and the eight-member pyramid.  
1 - main support points; 2 - trunnion; 3 - central support; 4 - rotating sector; 5 - feed element supports; 6 - reflector framework; 7 - auxiliary support points; 8 - intermediate support structure; 9 - eight-member support pyramid; 10 - counterweight beam.

Card 3/3

L 52045-65 FND/EWT(1)/EWG(r)/EEC-4/EEG(t)/FCS(x) Pa-5/Pae-2/Pi-4/Pj-4/

PI-4 GW/WS-4/WR

ACCESSION NR: A75012800

NR/2504/65/028/000/0005/0013

AUTHOR Vitkevich, V. V., Kalachev, P. D.

TITLE Fundamentals of the design of the cross-like wide-band radiotelescope  
in the LAM

SOURCE AN SSSR, Fizicheskii institut. Trudy, v. 28, 1965. Radioteleskopy  
(radio telescopes), 5-11

TOPIC TAGS: crosslike radiotelescope<sup>250</sup>, radioastronomy, radiotelescope design, radio-  
telescope construction, crosslike antenna

ABSTRACT The design of a cross-like antenna for the LAM is described. The antenna is a  
planar structure with a central feed and four arms. The arms are made of  
thin wires and are connected to a common feed point. The antenna is designed  
for operation in the LAM band (1.4-1.6 GHz) and has a bandwidth of 10-15%.

Card 1/2

L 52045-65

ACCESSION NR: AF5012800

3  
it is now in the adjusting stage. The second parabolic north-south cylinder is of the same size, fixed, and is currently under construction. The inclination control is being adjusted to the same as the first cylinder. In a sense, the probable fit is being adjusted to the same as the first cylinder. The inclination control is being adjusted to the same as the first cylinder. The inclination control is being adjusted to the same as the first cylinder.

designer." Orig. art. has: 5 figures.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademiya nauk SSSR (Physics  
Institute of the Academy of Sciences, SSSR)

SUBMITTED: 00

ENCL: 00

SUB CODE: AA

NO REF SOV: 002

OTHER: 001

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Card 2/2

L 47/40-65 REC-1/ENG(r)/ENT(1)/SEC(1)/FBD/FCS(k) Pa-5/P1-1/5/4/P1-1/P1-2  
SW/MS-1/7/12

ACCESSION NR: AT5012803

UR/2504/65/028/000/0039/0045

AUTHOR: Vitkevich, V.V.; Kalachev, P.D.

TITLE: 4. Possible approaches to the construction of large radio telescopes

SOURCE: AN SSSR, Fizicheskii institut. Trudy, v. 28, 1965. Radioteleskopy (Radio telescopes), 39-45

TOPIC TAGS: parabolic reflector, long wave reflector, short wave reflector, reflector construction, radio telescope

ABSTRACT: The further development of radio astronomy depends on advances in the design and construction of accurately directed radio telescopes. The present article discusses the possibilities of constructing such telescopes. The author considers the possibilities of constructing telescopes with parabolic reflectors, long wave reflectors, and short wave reflectors. The author also discusses the possibilities of constructing telescopes with other types of reflectors. The author concludes that the most promising approach to the construction of large radio telescopes is the use of parabolic reflectors. The author also discusses the possibilities of constructing telescopes with other types of reflectors. The author concludes that the most promising approach to the construction of large radio telescopes is the use of parabolic reflectors.

Card 1/2

1 12240-55

ACCESSION NR: AT5012803

the PLAN. Such a reflector could operate 88% of the time. For operation during the remaining 12% when the temperature deformations are excessive or the wind velocity exceeds 2 m/sec, the automatic reflector control would have to be designed to respond to wind loads and temperature effects. This last problem is presently under preliminary consideration. Analyses indicate that the configuration and construction of a British Columbia bank 75 m reflector is not the most desirable one. A small, newly designed reflector earmarked for observations at wave-lengths above 1.5 m has a flexible framework and clearly separated reflector-velocity and support systems (weight 1.4 t). All three designs are described in considerable detail. Orig. art. has: 3 figures (08)

ASSOCIATION: Fizicheskii Institut im P. N. Lebedeva AN SSSR (Physics Institute, AN SSSR)

SUBMITTED: 00

ENCL: 00

SUB CODE: AA, OP

NC REF SOV: 000

OTHER: 000

AND PRESS: 4005

Card 2/2 MB

L 52042-65 FBD/EWT(1)/EWG(v)/EEC-4/EEC(t)/FCS(E) Po-5/Pat-2/Ps-4/Pj-4/

PL-4 GN/WS-4 NR

ACCESSION NR 175012304

UR/2504/65/028.000/0046/0050

AUTHOR: Vitkevich, V. V., Kalachev, P. D.

TITLE: 5. Parabolic reflector with screens

SOURCE: AN SSSR. Fizicheskiy institut. Trudy, v. 28, 1965. Radioteleskopy (Radio telescopes), 46-50

TOPIC TAGS: screened parabolic reflector, low side lobe antenna, low interference antenna, radiotelescope antenna

ABSTRACT: The first half of this article surveys the theory of parabolic reflectors and the existing radiotelescopes utilizing such reflectors (see, e.g., P. D. Kalachev, T. A. Salomennich, Radiotekhnika i elektronika, 1961, 6, no. 3; 3, 1).



Card 1/2

L 5204.2-65

ACCESSION NR: AT5012804

Screens may partially overlap and partially cover the reflector. Their purpose is also to reduce the side lobes and increase the interference stability of the antenna. Orig. art. has. 3 formulas and 6 figures.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR (Physical Institute of the Academy of Sciences, USSR)

SUBMITTED: CO

ENCL: 00

SUB CODE: EC, RA.

NO REF SOV: 001

OTHER: 002

L 52040-65 FBD/ENT(1)/EWG(v)/EEC-4/EEC(v)/T/PCS(k) Re-5/Pac-4/Pac-2/  
 P1-4/P1-4/P1-4 GW/MS-4/WR  
 ACCESSION NR: AT5012805 UR/2504/65/023/000/0051/0089

AUTHOR: Kalachov, P. D.

TITLE: 6. Problems in the design of high-resolution parabolic antennas

SOURCE: AN SSSR. Fizicheskii Institut. Trudy, v. 28, 1965. Radioteleskopy (Radio telescopes), 51-89.

TOPIC TAGS: parabolic reflector design, high resolution parabolic antenna, low deformation parabolic mirror, parabolic reflector accuracy, reflector construction, balanced deformation compensation, obliquely symmetric reflector deformation, reflector wind load, reflector temperature deformation, radiotelescope construction

ABSTRACT: Among various existing radioastronomical antennas, those based on parabolic reflectors have numerous advantages. They are simple in construction and can be used at different wavelengths. They are also, if observed correctly, have a low noise temperature, etc. However, large-scale versions of such antennas (above 20 m in diameter) are difficult to design and build. Consequently, the author attempted to develop constructive solutions which would lead to the design of parabolic antennas which are highly accurate and at the same time sufficiently rigid to maintain the correct parabolic shape. The accuracy required for the construction of the reflecting surface of a parabolic reflector, the problem of

L 52040-65

ACCESSION NR: AT5012805

reflector deformations, and different reflector constructions and their support are studied from a theoretical point of view. The author goes on to propose a new type of reflector supports, discusses reflector reinforcements, describes the operation of the eight-bar pyramid during the horizontal and vertical orientation of the reflector, discusses the kinematically balanced compensation of obliquely asymmetric reflector deformations caused by its own weight, studies various constructions for the irradiator support, surveys the temperature deformations of the

at the FIAN. The results of the study show that: a) for the complete solution of the problem one needs to know the wind loads for all incidences and the temperature gradients to be expected during use; b) one can solve the partial problem - constructing a reflector of considerable size with small deformations due to its own weight - by utilizing a multisupport mounting of the reflector on its rotating and carrying mechanism; c) the basic characteristics of a multisupport mounting are its radially symmetric distribution relative to the reflector (radially symmetric) framework and its ability to stay in mutually parallel planes parallel to the reflector opening, even under obliquely symmetric loads (this is achieved by the multisupport mounting of the reflector rotation around horizontal axes); d) the advantage

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L 52040-65

ACCESSION NR: AT5012805

6

of such a symmetric scheme is that it does not require any complex devices for the compensation of elastic deformations and is, consequently, very reliable. el) supports of this type (as tested on the FIAN 60-meter instrument) can be used for radiometers of 10-m diameter and larger if one adds a servomechanism compensating the elastic deformations by acting on one or two nodal points (e.g., at the vertices of pyramids). "The author sincerely thanks senior scientific collaborator of the laboratory A. Ye. Salomonovich for numerous valuable remarks concerning the content of the paper and for his interest, and the coworkers of the Konstrukorskaya byuro laboratorii radioastronomii (Design bureau of the radioastronomy laboratory), Engineer-Designers V. T. Yevdokimova, I. A. Yemel'yanov, V. F. Nazarov, and V. G. Shubeko for their contribution to the development of the above-mentioned elements and for the organization of the present paper." Orig. art. has: 64 formulas and 16 figures.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR (Physics Institute of the Academy of Sciences, SSSR)

SUBMITTED: 00

ENCL: 00

SUB CODE: EC, AA

NO REF SOV: 008

OTHER: 007

mc  
Card 3/3

L 50346-65 FBD/EWT(1)/EWG(v)/SEC-4/SEC(t)/FOS(k) Fe-5/Pad-2/P1-4/Pj-k/  
P1-4 GW/WS-2/WR

ACCESSION NR: AT5012808

UR/2504/85/028/000/0104/0115

48

76

841

AUTHOR: Kalachev, P.D.; Salomonovich, A. Ye.

15B

TITLE: 9. Increasing the effective area of radio telescope antennas by reducing the scattering on the braces

SOURCE: AN SSSR. Fizicheskoy institut. Trudy, v. 29, 1965. Radioteleskopy (Radio telescopes), 104-115

TOPIC TAGS: radio telescope antenna, effective antenna area, mirror support scattering, scattering power loss

ABSTRACT: The effects of the edge and braces on the effective antenna area were studied in several earlier papers (see, e.g., A.I. Potekhin, Sov. radio, 1948). However, the

the mirror from the east of the antenna in each array  
Card 1/2

L 50346-65

ACCESSION NR: AT5012808

carries only the secondary re-emitting mirror; a decrease in the size of the braces  
automatically reduces the amount of the scattering. The laboratory of radio astronomy  
described briefly in the

article, whose scattering power losses are of the order of 10<sup>-10</sup> W/cm<sup>2</sup>.  
formulas, 4 figures, and 2 tables.

[08]

ASSOCIATION: Fizicheskii Institut im. P.N. Lebedeva AN SSSR (Physics Institute,  
AN SSSR)

SUBMITTED: 00

ENCL: 00

SUB CODE: AA, EC

NO REF SOV: 009

OTHER: 001

ATD PRESS: 4006

*me*  
Card 2/2



U 52033-65 FBD/ENT(1)/ENG(v)/REC-4/REC(v)/FCB(k) Pe-5/Pae-4/P1-4/P1-4/

PL-4 GW/WS-4/WR

ACCESSION NR: AT5012815

UR/2504/65/028/000/0183/0203

47

10

11

AUTHOR: Kalachev, P.D.

TITLE: Elastic deformations of the 22-meter parabolic reflector of the FLAN HT-22  
due to the weight of its own structure

Source: Vopr. Prikl. Mekh. i Fiz., v. 28, 1965, Radiotekhnika (Radio  
Engineering), no. 201

Subject: Elastic deformations; parabolic reflector deformation; gravity induced

ABSTRACT: Elastic deformations due to the weight of the structure of the 22-meter  
parabolic reflector of the FLAN HT-22 have been calculated. The results  
show that the deformations are small and do not affect the accuracy of the

Card 1/2

2 50031-11

ACCESSION NR. AT 012-11

acoustic signals. It is noted that the number of possible signals for the two above is not

ASSOCIATION: Fizicheskiy institut im. P.N. Lebedeva Akademii nauk SSSR (Physics)  
Institute of the Academy of Sciences, SSSR)

SUBMITTED: 00

ENCL: 00

SUB CODE: AA

NO REF SOV: 001

OTHER: 003

Card 2/2

L 52381-65 FSD/EWT(1)/ENG(v)/EEC-4/EEC(t) Fe-5/Pae-2/21-4 GW/HIS-4

ACCESSION NR: AT5012816

UR/2504/65/028/000/0204/0215

AUTHOR: Kalachev, P. D.

TITLE: 17. Elastic deformations due to gravity during the vertical orientation of a parabolic reflector or a four-point suspension (obliquely symmetrical load)

SOURCE: AN SSSR. Fizicheskii institut. Trudy, v. 28, 1965. Radioteleskopy (Rad. telescopes), 204-115

TOPIC TAGS: radiotelescope reflector design, parabolic reflector, reflector rotation, gravitational load, reflector deformation, rotating reflector, antenna, antenna reflector, orientation

ABSTRACT: The elastic deformations of a reflector caused by its own weight are a function of the angle of rotation around the horizontal axis and are maximal for the vertical position of the reflector (obliquely symmetrical loading). The author develops a method for the rigidity design of the supporting frame of a vertical parabolic radiotelescopic reflector (antenna) loaded by its own weight. The peculiarity of the method is that the beam-girder spatial system is calculated by reducing it to the calculation of plane beam and girder elements. The reflector frame under study, supported at four points,

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L 52381-65

ACCESSION NR: AT5012816

is shown in Fig. 1 of the Enclosure. Orig. art. has: 26 formulas, 3 figures and 4 tables.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR  
(Physics Institute of the Academy of Sciences, SSSR)

SUBMITTED: 00

ENCL: 01

SUB CODE: AA

NO REF SOV: 000

OTHER: 000

Card 2/3

• L 52381-65

ACCESSION NR: AT5012816

ENCLOSURE: 01

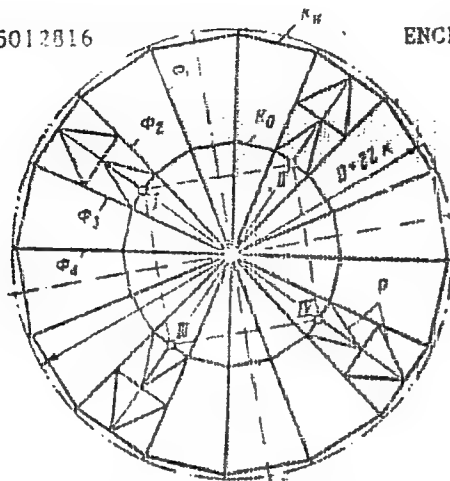


Fig. 1. Force diagram of the reflector frame: I, II, III and IV are support points; P - semidiagonal struts;  $\phi_1 - \phi_4$  are flat radial ribs;  $K_1$  - outer circular beam;  $K_0$  - supporting circular beam

3/3

5(4)8(1)

AUTHORS:

Lapik, V. S., Kalachev, P. M.,  
Silkin, Yu. A., Chmutov, K. V.

SOV/76-32-10-34/39

TITLE:

Laboratory Thermostat With Independent Current Supply  
(Laboratornyy termostat s avtonomnym pitaniyem)

PERIODICAL:

Zhurnal fizicheskoy khimii, 1958, Vol 32, Nr 10,  
pp 2455-2455 (USSR)

ABSTRACT:

Thermostats, connected to a circuit and in working use must be periodically controlled every few days. A thermostat is described which is supplied by an accumulator and which has a special heat insulation. The vessel to be controlled is put into a Deward (D'yuvar) container filled with e.g., glycerin. The use of glycerin makes possible operation up to 300°. The heater (6 watt) is in the thermostat liquid (glycerin) and is fed by a 6-volt storage battery. The heater can be in spiral form and made of chromium/nickel. An ordinary relay scheme (Ref 1) serves for its control. The mixing through can be carried out by an air current (from a steel flask with compressed air). The thermostat described needs 2.5 - 3 watt at a temperature control of 75° for a liquid volume of 100ml.

Card 1/2

Laboratory Thermostat With Independent Current Supply SOV/76-32-10-34/39

The volume of the thermostat liquid is given to be 1 l.  
The accuracy of temperature control amounts to  $\pm 0.25^{\circ}$   
and may be increased to  $\pm 0.1^{\circ}$  (by some modifications).  
There is 1 reference, 1 of which is Soviet.

SUBMITTED: February 27, 1958

Card 2/2



28 (4)

AUTHORS:

Chmutov, K. V., Lapik, V. S.,  
Kalachev, P. M., Silkin, Yu. A.

SOV/76-33-7-32/40

TITLE:

A Self-compensating Diaphragm Gauge

PERIODICAL:

Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 7, pp 1655 - 1656  
(USSR)

ABSTRACT:

A diaphragm gauge with automatic pressure compensation is described here (Fig). Pressure measurement is carried out by means of a thin membrane. The pressure change is transferred from the membrane to a mercury column, which puts a MN-145A-motor into operation. The latter lifts or lowers (according to the direction in which the membrane moves) a vessel filled with Hg or another liquid, which results in pressure balance. A relay that regulates the performance of the direct-current motor MN-145A is given in a scheme (Fig). It may also be applied to condenser alternating-current motors, e.g. to the type RD-07. For the application of a motor of the type SRD-2, however, the scheme of this relay must be somewhat modified. There is 1 figure.

Card 1/2

A Self-compensating Diaphragm Gauge

SOV/76-33-7-32/40

ASSOCIATION: Akademiya nauk SSSR, Institut fizicheskoy khimii, Moskva (Academy  
of Sciences of the USSR, Institute of Physical Chemistry, Moscow)

SUBMITTED: March 16, 1959

Card 2/2

KALACHEV, P.N.

Improving natural meadows and pastures. Zemledelie 7 no.4:75-76  
Ap '59. (MIRA 12:6)

1. Glavnyy agronom Dubovskoy rayonnoy inspeksii po sel'skomu  
khozyaystvu.

(Pastures and meadows)

KALACHEV, Radomir Nikitovich, kand.ekonom.nauk; DOLGACHEV, Petr Il'ich,  
bukhgalter; KUKLIN, P.V., red.; IZHBOLDINA, S.I., takhn.red.

[Monetary payment of wages on the "Sovetskaya Rossiya" Collective  
Farm] Deneghnaya oplata truda v kolchoze "Sovetskaya Rossiya."  
Stalingrad, Stalingradskoe knizhnoe izd-vo, 1960. 20 p.

(MIRA 14:1)

1. Kolchoz "Sovetskaya Rossiya" Uryupinskogo rayona Stalin-  
gradskoy oblasti (for Dolgachev).  
(Collective farms--Income distribution)

L 05795-07 ESO-2/EWT(1) DS

ACC NR: AP6030579

SOURCE CODE: UR/0413/66/000/016/0058/0058

INVENTOR: Kocherginskiy, M. D.; Nen'kova, L. F.; Kalachev, S. L.;  
Lidorenko, N. S.

24  
B

ORG: none

TITLE: Rechargeable disc shaped alkali galvanic cell<sup>29</sup> Class 21, No. 184948.  
[announced by All-Union Scientific Research Institute of Power Sources (Vsesoyuznyy  
nauchno-issledovatel'skiy institut istochnikov toka)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966,  
58

TOPIC TAGS: galvanic cell, rechargeable galvanic cell

ABSTRACT: An Author Certificate has been issued describing a rechargeable disc shaped, alkali-galvanic cell with a negative zinc electrode a positive manganese dioxide electrode and a thick electrolyte diaphragm (see Fig. 1). To improve the electrical ratings, the cell is provided with a casing having a symmetrical lug along the inside perimeter on which the diaphragms rest with the negative electrode between them, while the positive electrodes are arranged above the diaphragm.

Card 1/2

UDC: 621.352.7

L 05/95-6/

ACC NR: AP6030579

Orig. art. has: 1 figure. [Translation]

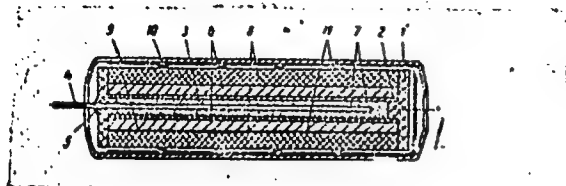


Fig. 1. Rechargeable alkali-galvanic cell.

1—Casing; 2—casing lug;  
3—negative electrode; 4—negative  
current lead; 5—casting compound;  
6—diaphragm; 7—auxiliary  
diaphragm; 8—positive electrode;  
9—positive current lead;  
10—depressions of positive current  
lead; 11—plastic film.

SUB CODE: 09/ SUBM DATE: 03Jun65/

Card 2/2 *egh*

ACC NR: AP6032490 SOURCE CODE: UR/0413/66/000/017/0030/0030

INVENTOR: Kocherginskiy, M. D.; Kalachev, S. L.; Pen'kova, L. P.;  
Nabiullina, M. F.

ORG: none

TITLE: Air-depolarized zinc galvanic cell. Class 21, No. 185369  
[announced by All-Union Scientific Research Institute of Current  
Sources (Vsesoyuznyy nauchno-issledovatel'skiy institut istochnikov  
toka)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki,  
no. 17, 1966, 30

TOPIC TAGS: galvanic cell, storage battery

ABSTRACT: An Author Certificate has been issued for an air-depolarized  
zinc galvanic cell which is assembled from series-connected disk  
elements and has an alkaline thickened electrolyte placed in a plastic  
container with a hermetically sealed cover (see Fig. 1). To simplify  
construction and extend cell life, a projection on the cover overlaps

Card 1/2

UDC: 621.352.7

KALACHEV, V., inzh.

Using rolling mills in making construction elements for a house  
designed by Engineer. Zhil.stroi. no.4/5:33 '58.

(MIRA 12:6)

(Precast concrete)



SUSHNIKOV, A., inzh.; KALACHEV, V., inzh.

Practices in learning to work with rolling mills. Zhil. stroi.  
no.1:9-12 '59.

(MIRA 12:10)

(Concrete slabs) (Concrete plants---Equipment and supplies)

SUSNIKOV, A., Geroy Sotsialisticheskogo Truda; KALACHEV, V.

The Lipetsk Reinforced Concrete Elements Plant for Industrial Construction.  
Na stroi. Ros. 3 no.2:10-12 F '68, (MIRA 16:2)

1. Glavnyy inzh. Vsesoyuznogo gosudarstvennogo proyektno-konstruktorskogo  
instituta, Moskva (for Susnikov). 2. Nachal'nik tekhnicheskogo otdela  
Vsesoyuznogo gosudarstvennogo proyektno-konstruktorskogo instituta,  
Moskva (for Kalachev).

(Lipetsk—Concrete plants)

L 9455-66 EWT(m)/EWP(j) RM

ACC NR: AP5025011 SOURCE CODE: UR/0286/65/000/016/0075/0075

AUTHORS: <sup>44</sup>Takhtarov, G. N.; <sup>44</sup>Trofimovich, D. P.; <sup>44</sup>Gerlakh, L. R.; <sup>44</sup>Podshibyakina, G. S.;  
<sup>44</sup>Zaborina, N. B.; <sup>44</sup>Lazovskaya, R. A.; <sup>44</sup>Yefimov, V. M.; <sup>44</sup>Kalachev, V. A.; <sup>44</sup>Mayorov, D. A.

ORG: none

TITLE: <sup>15</sup>Foam generator for an installation for continuous mixing and foaming of <sup>15</sup>latex  
mixtures. Class 39, No. 173911<sup>15</sup> announced by the Scientific Research Institute for  
Rubber and Latex Products (Nauchno-issledovatel'skiy institut rezinovykh i  
lateksnykh izdeliy) <sup>44</sup>

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 75

TOPIC TAGS: foam generator, latex foamer, latex mixer, *SYNTHETIC RUBBER,*  
*RUBBER WORKING MACHINERY*

ABSTRACT: This Author Certificate presents a foam generator (see Fig. 1)

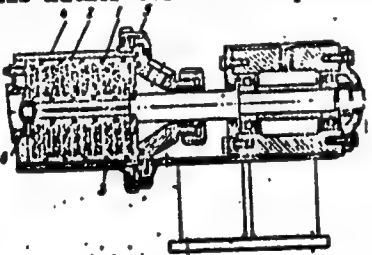


Fig. 1. 1 - Rotor; 2 - stator;  
3 - seals; 4 - body;  
5 and 6 - nuts.

Card 1/2 UDC: 678.021.1:621.187.115 <sup>2</sup>

L 9455-66

ACC NR: AP5025011

0  
for installations for continuous mixing and foaming of latex mixtures. This device includes an electric drive on the shaft of which is mounted a rotor in the form of disks with concentric circular teeth on both sides which fit into the clearances between the circular teeth mounted on stator disks. To increase the foaming capability and capacity while decreasing the physical size, the rotor and stator consist of many-sectioned dismountable disk packets mounted through rotary seals inside a cylindrical body and tightened by nuts. Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 05Mar64

Card 2/2 pt)

SUSNIKOV, Aleksandr Alekseyevich; KALACHEV, Valeriy Aleksandrovich;  
LAPIR, Flaviy Al'bertovich; ROZANOV, Nikolay Petrovich;  
FOLOMEYEV, Aleksandr Alekseyevich; SHAGINOV, D.L., dotsent,  
retsenzent; KOLDOMASOV, Ye.I., red.; DANILOV, L.N., red. izd-va;  
MODEL', B.I., tekhn.red.

[Equipment for plants manufacturing reinforced-concrete products]  
Oborudovanie zavodov zhelezobetonnykh izdelii. Moskva, Gos.  
nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 209 p.  
(Precast concrete) (MIRA 13:12)

*KALACHEV, V. I.*

KALACHEV, V.I.

Methods of teaching about automobiles in the tenth grade, Politekh.  
obuch. no.1:31-40 Ja '58. (MIRA 10:12)

1. Mikhaylovskaya srednyaya shkola No.1: Stalingradskoy oblasti.  
(Automobiles--Study and teaching)

KALACHEV, Ya.

Production-line manufacture of windows and doors. Na stroi. Ros.  
no.8:33-34 Ag '61. (MIRA 14:9)

1. Direktor derevoobrabatyvayushchego kombinata No.7 Glavmosprom-  
stroymaterialov.

(Moscow--Woodworking industries)

KALACHEV, Ya, M.

Shipment of cargo on sea. Mosokoy Transport (Maritime shipping), Moscow- Leningrad, 1951.



KALACHOV, Yu.A.

Using propane in place of acetylene in repairing agricultural  
machinery. Gaz. prom. 7 no.8:32-34 '62. (MIRA 17:10)

KALACHEV, Yu.A.

Consultation. Gaz. prom, 8 no.4:49 '63.

(MIRA 17:10)

KALACHEV, Yu.A., inzh.

Efficient designs of propane-oxygen nozzles. Mashinostroenie no.4:  
74-77 J1-Ag '63. (MIRA 17:2)

1. Mezhotraslevoy nauchno-issledovatel'skiy i proyektno-tekhnologicheskoy institut avtomatizatsii i mekhanizatsii mashinostroyeniya, Chelyabinsk.

KALACHEV, Yu. A.; IVANOV, N. I.

Polishing of polymethylmethacrylate by oxypropane flame.  
Plast. massy no. 5:61 '64. (MIRA 17:5)

**KALACHEV, Y. A.** Engr., Goryunovsk Metallurgical Plant, 1947  
14

**Restoration of Worn Rolling-Mill Rolls by Welding**  
**In. A. Kalachev.** (Avtogonnoe Delo, 1948, No. 1, pp. 29-30).  
(In Russian). An account is given of the use of welding  
for repairing worn rolls to give a surface of Binnell hardness  
greater than 150, the necessary carbon content of at least  
0.45% being secured by mixing 20% of graphite into the  
chalk coating of the electrode or by roasting the electrode with  
stainless steel. It was found that stainless steel could also be successfully  
used for building up wobblers which were worn down as much  
as 50%, the powdered alloy being heaped to a depth of  
4-6 mm. on the surface and fused on with the arc directed at  
the edge of the heap at 45°. -S. K.

**K-3**

**ASST. SEC. METALLURGICAL LITERATURE CLASSIFICATION**

**RESEARCH REPORT**  
GOSTOIZD ODE 497 581

**COMMON ELEMENTS**  
COMMON VARIABLE ELEMENTS

**MATERIALS INDEX**

**SECTION STEELING**  
STEELING MAP ONLY ONE

**RESEARCH REPORT**  
GOSTOIZD ODE 497 581

**COMMON ELEMENTS**  
COMMON VARIABLE ELEMENTS

KALASHOV, Yu. A., Eng.

~~Stakhanovite benzo-cutter~~  
Metal Cutting

Stakhanovite benzo-cutter P. S. Akumushkin. Avtog. delo, 23, No. 7, 1952

Monthly List of Russian Accessions, Library of Congress, November, 1952. Unclassified.

1. KALACHEV, Yu. A., Eng.
2. USSR (600)
4. Mikhaylov, Aleksandr Kuz'mich
7. Stakhanovite drill operator A. Ye. Mikhaylov, Avtog. delo, 24 No. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

1. KALACHEV, Yu. A., Eng.  
~~USSR (600)~~
  2. USSR (600)
  4. Oxyacetylene Welding and Cutting
  7. Stakhanovite oxygen cutter F. S. Dukov. Avtog. delo 24, No. 4, 1953.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.



KALACHEV, Yu.A., insh.

New method of preparing tangled wire for use in the burden.  
Metallurg 5 no.7:20 J1 '60. (MIRA 13:7)  
(Gas welding and cutting) (Scrap metals)

KALACHEV, Yu.A.; BERESNEV, A.T.; LUNEGOV, D.P.

Performance of a kerosene cutter using liquefied gas. Gaz.prom. 6 no.7:  
23-24 '61. (MIRA 17:2)

KALACHEV, Yu. A., inzh.

New nozzle for cutting with coke gas. Svar. proizv. no.6:40  
Je '61. (MIRA 14:6)

1. Chleyabinskiy metallurgicheskiy zavod.  
(Gas welding and cutting)

KALACHEV, Yu.A., inzh.; BERESNEV, A.T., inzh.; LUNEGOV, D.P.

Propane-oxygen cutting by the K-51 petroleum torch. Svar.  
proizv. no.7:37-38 JI '61. (MIRA 14:6)

1. Chelyabinskiy nauchno-issledovatel'skiy institut tekhnologii  
mashinostroyeniya (for Kalachev, Beresnev). 2. Chelyabinskiy  
traktorny zavod (for Lunegov).

(Gas welding and cutting--Equipment and supplies)

1.2300

31874  
S/133/62/000/001/010/010  
A054/A127

AUTHOR: Kalachev, Yu. A., Engineer

TITLE: New method of cutting stainless steel

PERIODICAL: Stal', no. 1, 1962, 93

TEXT: Yu. A. Kalachev, Engineer, and Yakimov, Technician, have developed a new method for cutting stainless steel. The conventional K 51 (K51) kerosene cutter or PP 53 (RR53) gas cutter can be used, but unlike the standard method, a 6 - 7 mm diameter low-carbon wire is held in the cutter flame. During the burning of the wire additional heat develops and the iron-oxides forming dissolve the high-melting chrome-oxides of the steel. These are subsequently carried off by the oxygen jet, laying bare the deeper layers of the metal. This method was improved in 1960 by Yu. A. Samarkin and G. S. Yusupov. Instead of using a low-carbon wire, they introduced titanium metal scraps into the cutter flame, which burn on the surface being cut, producing there a high temperature. This causes the chrome oxides to melt and reduces them at the same time. The molten products are removed continuously. There is practically no material which can resist the combined effect of oxygen, molten titanium and its oxides. This thermo-chemical

Card 1/2

TARAN, V.D., doktor tekhn.nauk, prof.; KALACHEV, Yu.A., inzh.

Cutting of stainless steel with standard cutters. Svar.proizv. no.1:  
34-35 Ja '62. (MIRA 15:3)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti  
(for Taran). 2. NIPTIAMMASH Chelyabinskogo sovnarkhoza (for  
Kalachev).

(Steel,Stainless)(Gas welding and cutting)

KALACHEV, Yu.A., inzh.; BERESNEV, A.T., inzh.; SERGEYEV, I.I., inzh.

Propane-butane cutting at the Chelyabinsk Pipe Rolling Mill. Svar.  
proizv. no.3:36-37 Mr '62. (MIRA 15:2)

1. Chelyabinskiy NIPTIAMMASH (for Kalachev, Beresnev).
2. Chelyabinskiy truboprokatnyy zavod (for Sergeyev).  
(Gas welding and cutting) (Chelyabinsk--Pipe mills)

KALACHEV, Yu.A., inzh.

Replacing acetylene by propane in the repair of agricultural  
machinery. Svar, proizv. no. 1:23-24 Ja '63. (MIRA 16:2)

1. NIPTIAMMASH Chelyabinskogo soveta narodnogo khozyaystva.  
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<p>The heat of reaction between pseudobutylene and sulfuric acid. M. A. Khokhlovkin, A. V. Kalacheva and M. A. Smirnova. <i>Sintet. Aukhkh</i> 1974, No. 2, 12-14. Special app. was constructed to det. the heat effect of the reaction: <math>H_2SO_4 + C_4H_8 = C_4H_9SO_4</math> (34.15 ± 1.7) cal. No references. A. Pestoff</p>																																																																																																							
<p>ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION</p> <table border="1"> <thead> <tr> <th colspan="13">SODORD #2</th> <th colspan="13">SODORD #13</th> </tr> </thead> <tbody> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td> <td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </tbody> </table>																										SODORD #2													SODORD #13													1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26																										
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CONDUCTOMETRIC ANALYSIS OF THE MIXTURE OF SULFURIC AND BUTYLSULFURIC ACIDS. M. A. Khokhlovkin and A. V. Kalacheva. <i>Sintet. Kautschuk</i> 1966, No. 3, 8-9.---Description of a conductometric titration with Ba(OH) <sub>2</sub> of a mixt. of H <sub>2</sub> SO <sub>4</sub> and BuHSO <sub>4</sub> with a Pt electrode covered with Pt black. The plotted curve showed a slight (barely noticeable) break, when all free H <sub>2</sub> SO <sub>4</sub> was titrated and only BuHSO <sub>4</sub> was left. The ratio of the length of abscissa corresponding to H <sub>2</sub> SO <sub>4</sub> titration to twice the length of abscissa corresponding to BuHSO <sub>4</sub> titration, gave the percentage of free and combined acids. Ten drops of sample was used dissd. with water to 50-75 cc., and the titration was made with 0.1 N Ba(OH) <sub>2</sub> . A. Pentoff																																																			
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